Use Attainability Analysis

for

WBID 0737 Cedar Creek

Submitted by SES, Inc.

To Missouri Department of Natural Resources Water Protection Program

Date Received: September 10, 2007

Field Data Sheets for Recreation Use Stream Surveys Data Sheet A - Water Body Identification

(For water body being surveyed)

Water Body Information

Water Body Name: Cedar Creek	WBID: 737
8 digit HUC code: 10300102	County: Callaway and Boone
Upstream Legal Description 49N 11W 3	
Downstream Legal Description 46N 11W 21	
Number of Sites Evaluated 14	
List all site numbers, listed upstream to downstream	14,1,13,11,12,10,8,9,4,5,6,7,3,2

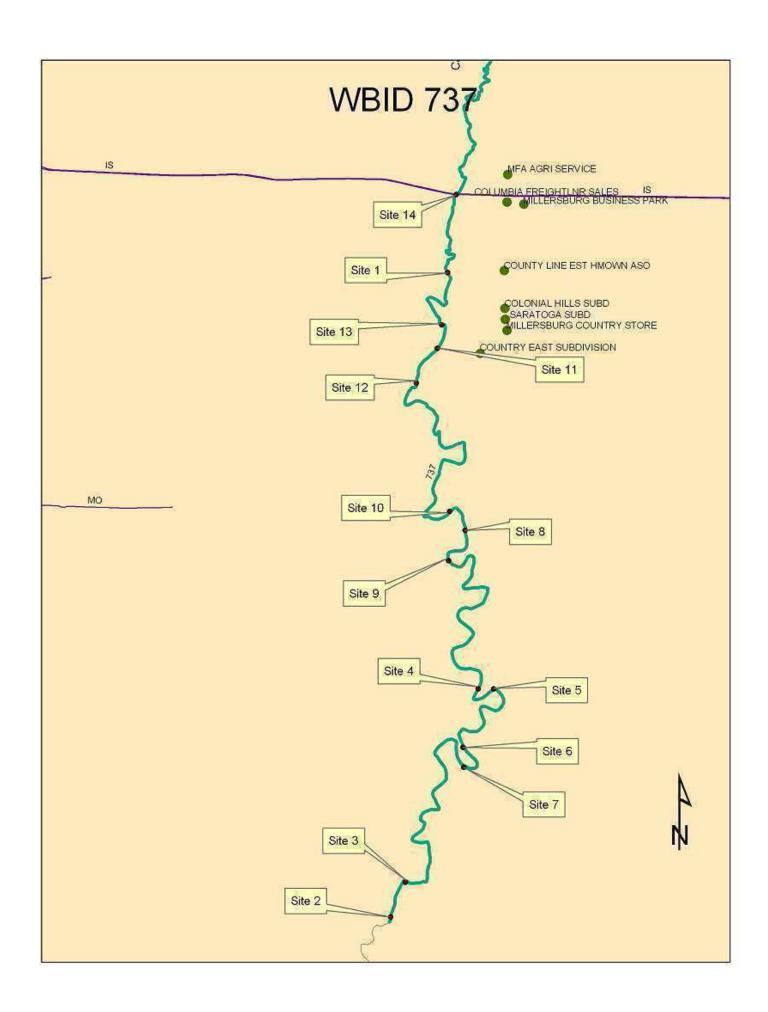
Discharger Facility Information

Discharger Facility Name(s):	MFA Agri Service
Discharger Permit Number(s):	MO 0124141

UAA Surveyor

Name of Surveyor:	Gilisa Gould	Telephone Numbe	er: 913-307-0046
Organization/Employ	yer: SES, Inc.		
Position: Field Tea	am Leader		

Signed:Da	ate:
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WBID 737 Site # 1

Date and Time: 8/29/2007 1:30 PM

Current Weather Conditions Partly Cloudy

Weather Conditions for Past 10 days: 0.88 in. max precipitation

Drought Conditions? No

Site Location (e.g. road crossing)

Dead end of CR 252

GPS Mark: 76

Upstream Photo 1 Downstream Photo 2

Uses Observed (Uses actually observed at time of survey) Circle

Swimming Skin Diving SCUBA diving Tubing

Water Skiing Wind Surfing Kayaking Boating

Wading Rafting Hunting Trapping

Fishing None of the Above <u>Other:</u> <u>two people with two horses</u>

Surrounding Conditions

City/county parks Playgrounds MDC conservation lands Urban areas

Campgrounds Boating accesses State parks National Forests

Nature trails Stairs/walkway No trespass sign Fence

Steep slopes <u>None of the Above</u> Other

Indications of Human Use

Roads Rope swings <u>Foot paths/prints</u> Dock/platform

Livestock Watering RV/ATV Tracks Camping Sites Fire pit/ring

WBID # 7							
	'37 76	Site #	1 Overson (r		6.9		
Upstream Views P			d Oxygen (p Is there a		present at this		yes
	no						
Select one of the f			ıres:				
	annel Featur	-	1				\neg
Riffle	0						_
Run	0 100		_	+			_
Pool							
Downstream View	's Physical [imensions	s: Is there ar	ny water _l	oresent at this	view?	yes
			If so, is the	ere an ob	vious current?		no
Substrate: % Cobble	% Gravel		% Sand		% Silt		\neg
	170 Graver	1	28)			
61		1		`	()		
61 % Mud/Clay			\neg)	0		
61 % Mud/Clay 0	% Bedroo)	U		
% Mud/Clay	% Bedroo	k 0				essment :	site)
% Mud/Clay 0 Aquatic Vegetation	% Bedroo	k 0 ount of veg	etation or a	lgal grov	vth at the asse		
% Mud/Clay 0	% Bedroo	k O ount of veg asses on or	etation or a	Igal grov Il growing	vth at the asse		
% Mud/Clay 0 Aquatic Vegetation	% Bedroo	k O ount of veg asses on or	etation or a	Igal grov Il growing	vth at the asse		
% Mud/Clay 0 Aquatic Vegetation 15%-30% prairie	% Bedroo	k O ount of veg asses on or	etation or a	Igal grov Il growing	vth at the asse		
Mud/Clay 0 Aquatic Vegetation 15%-30% prairie	% Bedroom: (Note amore) forbs and gratics	k O ount of veg asses on or	etation or a	Igal grov Il growing nnel.	vth at the asso		
% Mud/Clay 0 Aquatic Vegetation 15%-30% prairie Water Characterist	% Bedroom: (Note amount of the standard of the	k O ount of veg asses on or a	ne transect a areas of char	Il growing nnel. None Milky	out from bank		
Mud/Clay 0 Aquatic Vegetation 15%-30% prairie Water Characterist Odor Color	% Bedroom: (Note amount of the second of the	Musky Green	etation or an etransect an areas of characteristics. Chemical Gray	Il growing nnel. None Milky	out from bank Other		

Site # 1 1 Mark # 76 WBID # 737

	Depth (m)		Depth (m)		Depth (m)
Transect 1	0.05	Transect 5	0.05	Transect 9	0.00
Substrate:	0.10	Substrate:	0.25	Substrate:	0.00
Cobble/Sand	0.10	Cobble/Gravel	0.00	Cobble	0.00
Water Clarity:	0.15	Water Clarity:	0.00	Water Clarity:	0.00
clear	0.25	Scumy	0.00	clear	0.00
Channel Feature:	0.30	Channel Feature:	0.00	Channel Feature:	0.00
pool	0.20	Pool	0.00	pool	0.00
Channel Width:	0.15	Channel Width:	0.00	Channel Width:	0.00
8 yards	0.05	20 yards	0.00	16 yards	0.05
0.13	0.00	0.00	0.00	0.00	0.05
Transect 2	0.00	Transect 6	0.00	Transect 10	0.00
Substrate:	0.05	Substrate:	0.00	Substrate:	0.00
Cobble/Sand	0.10	Cobble	0.00	Cobble/Sand	0.00
Water Clarity:	0.20	Water Clarity:	0.00	Water Clarity:	0.00
clear	0.25	N/A	0.00	clear	0.00
Channel Feature:	0.30	Channel Feature:	0.00	Channel Feature:	0.00
pool	0.15	pool	0.00	pool	0.10
Channel Width:	0.05	Channel Width:	0.00	Channel Width:	0.10
14 yards	0.05	15 yards	0.00	15 yards	0.15
0.13	0.25	0.00	0.00	0.00	0.05
Transect 3	0.00	Transect 7	0.00	Transect 11	0.05
Substrate:	0.00	Substrate:	0.00	Substrate:	0.15
Cobble/Gravel	0.00	Cobble	0.00	Cobble/Sand	0.15
Water Clarity:	0.00	Water Clarity:	0.00	Water Clarity:	0.15
N/A	0.00	N/A	0.00	clear	0.20
Channel Feature:	0.00	Channel Feature:	0.00	Channel Feature:	0.25
pool	0.00	pool	0.00	pool	0.20
Channel Width:	0.00	Channel Width:	0.00	Channel Width:	0.20
13 yards	0.00	17 yards	0.00	14 yards	0.25
0.00	0.00	0.00	0.00	0.18	0.15
Transect 4	0.00	Transect 8	0.00		
Substrate:	0.05	Substrate:	0.00	Site Median	Site Maximum
Cobble/Sand	0.00	Cobble	0.00	0.00	0.30
Water Clarity:	0.00	Water Clarity:	0.00		
clear	0.00	clear	0.00		
Channel Feature:	0.00	Channel Feature:	0.00		
pool	0.00	pool	0.00		
Channel Width:	0.00	Channel Width:	0.00		
19 yards	0.00	19 yards	0.05		
0.00	0.00	0.00	0.20		

WBID 737 Site # 2

Date and Time: 8/29/2007 3:40PM

Current Weather Conditions Cloudy-Fair

Weather Conditions for Past 10 days: 0.88 in. max precipitation

Drought Conditions? No

Site Location (e.g. road crossing) Downstream from Hwy. Y

GPS Mark: 77

Upstream Photo 4 Downstream Photo 3

Uses Observed (Uses actually observed at time of survey) Circle

Swimming Skin Diving SCUBA diving Tubing

Water Skiing Wind Surfing Kayaking Boating

Wading Rafting Hunting Trapping

Fishing <u>None of the Above</u> Other

Surrounding Conditions

City/county parks Playgrounds MDC conservation lands Urban areas

Campgrounds Boating accesses State parks National Forests

Nature trails Stairs/walkway No trespass sign Fence

Steep slopes None of the Above Other

Indications of Human Use

Roads Rope swings Foot paths/prints Dock/platform

Livestock Watering RV/ATV Tracks Camping Sites Fire pit/ring

WBID # Mark # Upstream \	737 77 Views Phys	sical Dime		2 Oxygen (p Is there ar	pm)	7.2 resent at this	view?	yes
				If so, is the	ere an obv	ious current?		no
Select one		_		es:				
Riffle [% of Chanr	nel Feature 0			I	Π		1
Run		0						1
Pool		100						†
Downstrea	m View's F	Physical Di	mensions:			esent at this	view?	yes
Г				If so, is the	ere an obv	ious current?		no
}								1
}					-			1
Substrate:		0/ Crovel		0/ Cand		lo/ 6:14		1
% Cobble 18		% Gravel 35		% Sand 12		% Silt 24]
% Mud/Clay	,	% Bedrock]		24		
11		0		l				
	getation: (Note amou	unt of veget	tation or al	gal grow	th at the asse	essment si	te)
70% coverage of algae on substrate. Spike rush, and small willow along banks.								
Water Chai	racteristics	6						
Odor		Sewage	Musky	Chemical	<u>None</u>	Other		
Color		<u>Clear</u>	<u>Green</u>	Gray	Milky	Other		
Bottom Dep	osit	Sludge	Solids	Fine Sed.	None	Other		
Surface Dep	posit	<u>Oil</u>	<u>Scum</u>	Foam	None	Other		

Site # 77 WBID # 737

_	Depth (m)
Transect 1	0.00
Substrate:	0.10
Gravel/Sand	0.15
Water Clarity:	0.20
clear	0.25
Channel Feature:	0.30
pool	0.35
Channel Width:	0.45
13 yards	0.50
0.28	0.30
Transect 2	0.00
Substrate:	0.00
Cobble	0.00
Water Clarity:	0.00
clear	0.00
Channel Feature:	0.00
pool	0.00
Channel Width:	0.00
22 yards	0.05
0.00	0.05
Transect 3	0.00
Substrate:	0.00
cobble/gravel	0.00
Water Clarity:	0.00
cloudy	0.00
Channel Feature:	0.00
pool	0.05
Channel Width:	0.00
30 yards	0.00
0.00	0.20
Transect 4	0.20
Substrate:	0.40
cobble/sand	0.20
Water Clarity:	0.10
clear	0.00
Channel Feature:	0.00
pool	0.00
Channel Width:	0.00
33 yards	0.00
0.00	0.00

	Depth (m)
Transect 5	0.45
Substrate:	0.60
Gravel	0.50
Water Clarity:	0.20
clear	0.15
Channel Feature:	0.10
pool	0.05
Channel Width:	0.00
23 yards	0.00
0.13	0.00
Transect 6	0.20
Substrate:	0.35
gravel	0.45
Water Clarity:	0.30
clear	0.30
Channel Feature:	0.30
pool	0.25
Channel Width:	0.20
15 yards	0.15
0.28	0.05
Transect 7	0.05
Substrate:	0.35
Gravel	0.30
Water Clarity:	0.45
clear	0.50
Channel Feature:	0.50
pool	0.50
Channel Width:	0.40
23 yards	0.35
0.38	0.30
Transect 8	0.00
Substrate:	0.05
silt	0.15
Water Clarity:	0.35
cloudy	0.50
Channel Feature:	0.65
pool	0.70
Channel Width:	0.85
24 yards	0.80
0.43	0.35

	Depth (m)
Transect 9	0.05
Substrate:	0.30
Silt/Clay	0.40
Water Clarity:	0.55
cloudy	0.70
Channel Feature:	0.70
pool	0.75
Channel Width:	0.80
28 yards	0.85
0.63	0.30
Transect 10	0.05
Substrate:	0.30
Silt/Clay	0.60
Water Clarity:	0.60
cloudy	0.90
Channel Feature:	1.00
pool	1.00
Channel Width:	1.00
21 yards	1.00
0.95	1.00
Transect 11	0.00
Substrate:	0.10
silt/gravel	0.30
Water Clarity:	0.50
clear	0.55
Channel Feature:	0.70
pool	0.90
Channel Width:	1.00
18 yards	1.00
0.63	1.00

Site Median Site Maximum 0.30 1.00

WBID 737 Site # 3

Date and Time: 8/29/2007 4:36pm

Current Weather Conditions Cloudy/Fair

Weather Conditions for Past 10 days: 0.88 in. max precipitation

Drought Conditions? No

Site Location (e.g. road crossing)

Upstream from Site 2

GPS Mark: 78

Upstream Photo 5 Downstream Photo 6

Uses Observed (Uses actually observed at time of survey) Circle

Swimming Skin Diving SCUBA diving Tubing

Water Skiing Wind Surfing Kayaking Boating

Wading Rafting Hunting Trapping

Fishing <u>None of the Above</u> Other

Surrounding Conditions

City/county parks Playgrounds MDC conservation lands Urban areas

Campgrounds Boating accesses State parks National Forests

Nature trails Stairs/walkway No trespass sign Fence

Steep slopes None of the Above Other

Indications of Human Use

Roads Rope swings Foot paths/prints Dock/platform

Livestock Watering RV/ATV Tracks Camping Sites Fire pit/ring

WBID#	737	•	Site #	3				
Mark #	78			Oxygen (p		7.8		
Upstream	Views Phy	sical Dime	ensions:	Is there ar	ny water p	resent at this	view?	yes
				If so, is the	re an obv	ious current?		no
Select one	of the foll	lowing cha	nnel feature	es:				
		nel Feature						_
Riffle		0]
Run		0						1
Pool		100]
Downstrea	ım View's	Physical D	imensions:			resent at this vious current?	view?	yes
						,		-
								4
								4
								1
Substrate:								_
% Cobble		% Gravel		% Sand		% Silt]
24		29		14		33		
% Mud/Cla	у	% Bedrocl]				
J	andtation:		•	tation or al	asl arowi	h at the acce	seemant ei	to)
Aquatic Vegetation: (Note amount of vegetation or algal growth at the assessment site)								
		Vegetati	on along bar	nks (small w	illow, wat	er primrose).		
Water Cha	racteristic	s						
Odor		Sewage	Musky	Chemical	<u>None</u>	Other		
Color		<u>Clear</u>	<u>Green</u>	Gray	Milky	Other		
Bottom De	oosit	Sludge	Solids	Fine Sed.	None	Other		
Surface De	posit	Oil	<u>Scum</u>	Foam	None	Other		

Site # 3 WBID # 737

-	Depth (m)				Depth (m)
Transect 1	0.15	Transect 5	0.05	Transect 9	0.05
Substrate:	0.40	Substrate:	0.30	Substrate:	0.35
gravel/silt	0.40	gravel/sand	0.50	silt/sand	0.50
Water Clarity:	0.35	Water Clarity:	0.65	Water Clarity:	0.50
murky	0.30	murky	0.80	murky	0.45
Channel Feature:	0.30	Channel Feature:	0.95	Channel Feature:	0.45
pool	0.25	pool	1.00	pool	0.40
Channel Width:	0.20	Channel Width:	1.00	Channel Width:	0.35
21 yards	0.20	18 yards	1.00	24 yards	0.50
0.28	0.05	0.88	1.00	0.43	0.40
Transect 2	0.15	Transect 6	0.05	Transect 10	0.00
Substrate:	0.55	Substrate:	0.15	Substrate:	0.10
gravel/silt	0.70	cobble/silt	0.30	cobble/silt	0.20
Water Clarity:	0.60	Water Clarity:	0.35	Water Clarity:	0.20
murky	0.55	clear	0.40	murky	0.25
Channel Feature:	0.55	Channel Feature:	0.55	Channel Feature:	0.20
pool	0.50	pool	0.70	pool	0.20
Channel Width:	0.30	Channel Width:	0.85	Channel Width:	0.30
23 yards	0.15	18 yards	0.90	23 yards	0.35
0.53	0.00	0.48	0.55	0.20	0.40
Transect 3	0.10	Transect 7	0.05	Transect 11	0.05
Substrate:	0.30	Substrate:	0.20	Substrate:	0.15
gravel/silt	0.45	cobble	0.00	cobble/gravel	0.20
Water Clarity:	0.65	Water Clarity:	0.00	Water Clarity:	0.15
murky	0.80	clear	0.00	clear	0.10
Channel Feature:	0.90	Channel Feature:	0.00	Channel Feature:	0.05
pool	1.00	pool	0.00	pool	0.00
Channel Width:	1.00	Channel Width:	0.00	Channel Width:	0.00
26 yards	1.00	33 yards	0.10	24 yards	0.05
0.85	1.00	0.00	0.25	0.05	0.00
Transect 4	0.05	Transect 8	0.50		
Substrate:	0.40	Substrate:	0.20	Site Median	Site Maximum
gravel/silt	0.80	cobble/sand	0.00	0.30	1.00
Water Clarity:	1.00	Water Clarity:	0.00		
murky	1.00	clear	0.00		
Channel Feature:	1.00	Channel Feature:	0.00		
pool	1.00	pool	0.00		
Channel Width:	1.00	Channel Width:	0.05		
31 yards	1.00	15 yards	0.10		
1.00	1.00	0.00	0.00		

WBID 737 Site # 4

Date and Time: 08.29.07 6:05 PM

Current Weather Conditions cloudy/fair

Weather Conditions for Past 10 days: 0.88 in. max precipitation

Drought Conditions? No

Site Location (e.g. road crossing) train tressel near Hwy H

GPS Mark: 79

Upstream Photo 8 Downstream Photo 9

Uses Observed (Uses actually observed at time of survey) Circle

Swimming Skin Diving SCUBA diving Tubing

Water Skiing Wind Surfing Kayaking Boating

Wading Rafting Hunting Trapping

Fishing <u>None of the Above</u> Other

Surrounding Conditions

City/county parks Playgrounds MDC conservation lands Urban areas

Campgrounds Boating accesses State parks <u>National Forests</u>

Nature trails Stairs/walkway No trespass sign Fence

<u>Steep slopes</u> None of the Above Other

Indications of Human Use

Roads Rope swings Foot paths/prints Dock/platform

Livestock Watering RV/ATV Tracks Camping Sites <u>Fire pit/ring</u>

picture 7

Mark # 79 Upstream Views Phy			Oxygen (p Is there ar		8.7 present at this		yes
	If so, is there an obvious current?						
			11 00, 10 1110	10 411 001	iodo carront.		no
Select one of the following of Chan	lowing cha		es:				
Riffle	9						7
Run							
Pool	91						
Downstream View's	Physical Di	imensions:	Is there an	y water p	resent at this	view?	yes
			If so, is the	re an obv	ious current?		no
					1	<u> </u>	1
							†
]
Substrate:							
18% Cobble	36% Grave	el	14% Sand		9% Silt		1
	1		7		•		-
% Mud/Clay	23% Bedro	ock					
Aquatic Vegetation:	(Note amou	ınt of veae	tation or al	gal grow	th at the ass	essment si	ite)
riquatio rogotationi	(ITOTO GIIIO	ant or vogo	tation or an	gai gi o ii	in at the acc		
	grasse	s along ban	ıks, 10% alg	ae bloom	in stream.		
Water Characteristic	s						
Odor	Sewage	<u>Musky</u>	Chemical	None	Other		
Color	Clear	<u>Green</u>	Gray	Milky	<u>Other</u>	<u>Brown</u>	
Bottom Deposit	Sludge	Solids	Fine Sed.	None	Other		
Surface Deposit	Oil	<u>Scum</u>	Foam	None	Other		

WBID#

737

Site #

4

0.05 0.30 0.45 0.45 0.70 0.75 0.60 0.50 0.50 0.25 0.35 0.60 0.80 0.70 0.65 0.50 0.35 0.20 0.25 0.10 0.05 0.20 0.40 0.55 0.70 0.75 0.60 0.60 0.45 0.30 0.05 0.10

0.25

0.40 0.55 0.65 0.75 0.75 0.65

Site # 737 DNR added "4" Mark # 79 WBID # 737

_	Depth (m)		Depth (m)
Transect 1	0.10	Transect 5	0.
Substrate:	0.35	Substrate:	0.
gravelly bedrock	0.45	silty gravel	0.
Water Clarity:	0.50	Water Clarity:	0.
clear	0.45	murky	0.
Channel Feature:	0.55	Channel Feature:	0.
pool	0.65	pool	0.
Channel Width:	0.60	Channel Width:	0.
18 yards	0.40	23 yards	0.
0.45	0.10	0.48	0.
Transect 2	0.10	Transect 6	0.
Substrate:	0.40	Substrate:	0.
sand	0.60	gravelly bedrock	0.
Water Clarity:	0.45	Water Clarity:	0.
murky	0.40	murky	0.
Channel Feature:	0.30	Channel Feature:	0.
pool	0.20	pool	0.
Channel Width:	0.25	Channel Width:	0.
23 yards	0.20	20 yards	0.
0.28	0.05	0.43	0.
Transect 3	0.15	Transect 7	0.
Substrate:	0.10	Substrate:	0.
cobbly gravel	0.15	gravelly bedrock	0.
Water Clarity:	0.20	Water Clarity:	0.
clear	0.25	murky	0.
Channel Feature:	0.30	Channel Feature:	0.
pool	0.15	pool	0.
Channel Width:	0.15	Channel Width:	0.
19 yards	0.15	24 yards	0.
0.15	0.05	0.50	0.
Transect 4	0.50	Transect 8	0.
Substrate:	0.50	Substrate:	0.
silty sand	0.50	gravelly bedrock	0.
Water Clarity:	0.60	Water Clarity:	0.
murky	0.85	murky	0.
Channel Feature:	0.70	Channel Feature:	0.
pool	0.55	pool	0.
Channel Width:	0.50	Channel Width:	0.
17 yards	0.40	15 yards	0.
0.50	0.30	0.48	0.

pool 0.50 17 yards 0.70 0.85 0.38 0.70 Transect 10 0.00 Substrate: 0.00 gravelly bedrock 0.05 Water Clarity: 0.05 clear 0.10 Channel Feature: 0.15 pool 0.15 Channel Width: 0.05 8 yards 0.00 0.05 Transect 11 0.00 Substrate: 0.00 Substrate: 0.00 Water Clarity: 0.00 Vater Clarity: 0.005	-	Depth (m)
gravelly bedrock	Transect 9	0.05
Water Clarity: 0.35 murky 0.35 Channel Feature: 0.40 pool 0.50 17 yards 0.70 0.85 0.38 0.38 0.70 Transect 10 0.00 Substrate: 0.00 gravelly bedrock 0.05 Water Clarity: 0.05 clear 0.10 Channel Feature: 0.15 Channel Width: 0.05 Transect 11 0.00 Substrate: 0.00 cobble 0.00 Water Clarity: 0.00 clear 0.05 Channel Feature: 0.00 clear 0.05 Channel Feature: 0.00 Channel Width: 0.00 Channel Width: 0.00 Channel Width: 0.00	Substrate:	0.25
murky 0.35 Channel Feature: 0.40 pool 0.50 17 yards 0.70 0.85 0.38 0.38 0.70 Transect 10 0.00 Substrate: 0.00 gravelly bedrock 0.05 Water Clarity: 0.05 clear 0.10 Channel Feature: 0.15 Channel Width: 0.05 Transect 11 0.00 Substrate: 0.00 cobble 0.00 Water Clarity: 0.00 clear 0.05 Channel Feature: 0.00 clear 0.05 Channel Feature: 0.00 clear 0.05	gravelly bedrock	0.35
Channel Feature: 0.40 pool 0.50 17 yards 0.70 0.85 0.70 Transect 10 0.00 Substrate: 0.00 gravelly bedrock 0.05 Water Clarity: 0.05 clear 0.10 Channel Feature: 0.15 pool 0.15 Channel Width: 0.05 3 yards 0.00 0.05 0.05 Transect 11 0.00 Substrate: 0.00 cobble 0.00 Water Clarity: 0.00 clear 0.05 Channel Feature: 0.00 clear 0.05 Channel Feature: 0.00 Channel Feature: 0.00 Channel Width: 0.00 Channel Width: 0.00	Water Clarity:	0.35
Dool 0.50 17 yards 0.70 0.85 0.38 0.70 0.85 0.38 0.70 Transect 10 0.00 Substrate: 0.00 gravelly bedrock Water Clarity: 0.05 clear 0.10 Channel Feature: 0.15 Dool 0.15 Channel Width: 0.05 0.05 0.05 0.05 Transect 11 0.00 Substrate: 0.00 0.00 Water Clarity: 0.00 0.00 Water Clarity: 0.00 Channel Feature: 0.00 clear 0.05 Channel Feature: 0.00 Channel Width: 0.00 Channel Width: 0.00 Channel Width: 0.00	murky	0.35
17 yards 0.70	Channel Feature:	0.40
0.38 0.70 Transect 10 Substrate: 0.00 gravelly bedrock Water Clarity: 0.05 clear Channel Feature: 0.15 pool 0.15 Channel Width: 0.05 8 yards 0.00 0.05 Transect 11 Substrate: 0.00 Water Clarity: 0.00 Cobble 0.00 Water Clarity: 0.00 Channel Feature: 0.00 criffle 0.00 Channel Width: 0.00 Channel Feature: 0.00 clear Channel Feature: 0.00 Channel Feature: 0.00 Channel Width: 0.00 Channel Width: 0.00 Channel Width: 0.00	pool	0.50
0.38 0.70 Transect 10 0.00 Substrate: 0.00 gravelly bedrock 0.05 Water Clarity: 0.05 clear 0.10 Channel Feature: 0.15 pool 0.15 Channel Width: 0.05 8 yards 0.00 0.05 0.05 Transect 11 0.00 Substrate: 0.00 cobble 0.00 Water Clarity: 0.00 clear 0.05 Channel Feature: 0.00 clear 0.05 Channel Width: 0.00 Channel Width: 0.00 Channel Width: 0.00	17 yards	0.70
Transect 10 0.00 Substrate: 0.00 gravelly bedrock 0.05 Water Clarity: 0.05 clear 0.10 Channel Feature: 0.15 pool 0.15 Channel Width: 0.05 8 yards 0.00 0.05 0.05 Transect 11 0.00 Substrate: 0.00 cobble 0.00 Water Clarity: 0.00 clear 0.05 Channel Feature: 0.00 channel Width: 0.00 Channel Width: 0.00 6 yards 0.00		0.85
Substrate: 0.00 gravelly bedrock 0.05 Water Clarity: 0.05 clear 0.10 Channel Feature: 0.15 pool 0.15 Channel Width: 0.05 8 yards 0.00 0.05 0.05 Transect 11 0.00 Substrate: 0.00 cobble 0.00 Water Clarity: 0.00 clear 0.05 Channel Feature: 0.00 riffle 0.00 Channel Width: 0.00 6 yards 0.00	0.38	0.70
gravelly bedrock Water Clarity:	Transect 10	0.00
Water Clarity: 0.05 clear 0.10 Channel Feature: 0.15 pool 0.15 Channel Width: 0.05 8 yards 0.00 0.05 0.05 Transect 11 0.00 Substrate: 0.00 cobble 0.00 Water Clarity: 0.00 clear 0.05 Channel Feature: 0.00 channel Width: 0.00 Channel Width: 0.00 6 yards 0.00	Substrate:	0.00
clear 0.10 Channel Feature: 0.15 pool 0.15 Channel Width: 0.05 8 yards 0.00 0.05 0.05 Transect 11 0.00 Substrate: 0.00 cobble 0.00 Water Clarity: 0.00 clear 0.05 Channel Feature: 0.00 riffle 0.00 Channel Width: 0.00 6 yards 0.00	gravelly bedrock	0.05
Channel Feature: 0.15 pool 0.15 Channel Width: 0.05 8 yards 0.00 0.05 0.05 Transect 11 0.00 Substrate: 0.00 cobble 0.00 Water Clarity: 0.00 clear 0.05 Channel Feature: 0.00 Channel Width: 0.00 Channel Width: 0.00 6 yards 0.00	Water Clarity:	0.05
Description	clear	0.10
Channel Width: 0.05 8 yards 0.00 0.05 0.05 Transect 11 0.00 Substrate: 0.00 cobble 0.00 Water Clarity: 0.00 clear 0.05 Channel Feature: 0.00 riffle 0.00 Channel Width: 0.00 6 yards 0.00	Channel Feature:	0.15
8 yards 0.00 0.05 0.05 Transect 11 0.00 Substrate: 0.00 Cobble 0.00 Water Clarity: 0.00 Clear 0.05 Channel Feature: 0.00 riffle 0.00 Channel Width: 0.00 6 yards 0.00	pool	0.15
0.05 0.05 Transect 11 0.00 Substrate: 0.00 cobble 0.00 Water Clarity: 0.00 clear 0.05 Channel Feature: 0.00 riffle 0.00 Channel Width: 0.00 6 yards 0.00	Channel Width:	0.05
Transect 11 0.00 Substrate: 0.00 cobble 0.00 Water Clarity: 0.00 clear 0.05 Channel Feature: 0.00 riffle 0.00 Channel Width: 0.00 6 yards 0.00	8 yards	0.00
Substrate: 0.00 cobble 0.00 Water Clarity: 0.00 clear 0.05 Channel Feature: 0.00 riffle 0.00 Channel Width: 0.00 6 yards 0.00	0.05	0.05
cobble 0.00 Water Clarity: 0.00 clear 0.05 Channel Feature: 0.00 riffle 0.00 Channel Width: 0.00 6 yards 0.00	Transect 11	0.00
Water Clarity: 0.00 clear 0.05 Channel Feature: 0.00 riffle 0.00 Channel Width: 0.00 6 yards 0.00	Substrate:	0.00
clear 0.05 Channel Feature: 0.00 riffle 0.00 Channel Width: 0.00 6 yards 0.00	cobble	0.00
Channel Feature: 0.00 riffle 0.00 Channel Width: 0.00 6 yards 0.00	Water Clarity:	0.00
riffle 0.00 Channel Width: 0.00 6 yards 0.00	clear	0.05
Channel Width: 0.00 6 yards 0.00	Channel Feature:	0.00
6 yards 0.00	riffle	0.00
•	Channel Width:	0.00
0.00	6 yards	0.00
	0.00	0.00

Site Median Site Maximum 0.35 0.85

WBID 737 Site # 5

Date and Time: 8.29.07 7:00PM

Current Weather Conditions cloudy/fair

Weather Conditions for Past 10 days: 0.88 in. max precipitation

Drought Conditions? No

Site Location (e.g. road crossing) downstream from site #4

GPS Mark: 80

Upstream Photo 11 Downstream Photo 10

Uses Observed (Uses actually observed at time of survey) Circle

Swimming Skin Diving SCUBA diving Tubing

Water Skiing Wind Surfing Kayaking Boating

Wading Rafting Hunting Trapping

Fishing <u>None of the Above</u> Other

Surrounding Conditions

City/county parks Playgrounds MDC conservation lands Urban areas

Campgrounds Boating accesses State parks National Forests

Nature trails Stairs/walkway No trespass sign Fence

Steep slopes None of the Above Other

Indications of Human Use

Roads Rope swings Foot paths/prints Dock/platform

Livestock Watering RV/ATV Tracks Camping Sites Fire pit/ring

Substrate: Sub	owing char nel Feature 91 0 9		If so, is the				
Select one of the following channel features: % of Channel Feature Riffle 91 Run 0 Pool 9 Downstream View's Physical Dimensions: Is there any water present at this view? If so, is there an obvious current? no Substrate: 100% Cobble % Gravel % Sand % Silt % Mud/Clay % Bedrock Aquatic Vegetation: (Note amount of vegetation or algal growth at the assessment site) Water Characteristics Odor Sewage Musky Chemical None Color Clear Green Gray Milky Other	nel Feature 91 0 9	nnel feature		ere an obv	ious current?	.	no
Select one of the following channel features: % of Channel Feature Riffle Run 0 91 Run 0 90 Bownstream View's Physical Dimensions: Is there any water present at this view? If so, is there an obvious current? no Substrate: 100% Cobble % Gravel % Sand % Silt % Mud/Clay % Bedrock Aquatic Vegetation: (Note amount of vegetation or algal growth at the assessment site) Water Characteristics Odor Sewage Musky Chemical None Other Color Clear Green Gray Milky Other	nel Feature 91 0 9	nnel feature		ere an obv	ious current?	Г	no
Riffle Run 91	nel Feature 91 0 9	nnel feature	es:			Γ	1
Riffle Run 91	nel Feature 91 0 9	mer reature	es:			Τ	7
Riffle Run 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	91 0 9						1
Run O 9	9						
Pool 9 Downstream View's Physical Dimensions: Is there any water present at this view? yes If so, is there an obvious current? no Substrate: 100% Cobble	9				I		4
Downstream View's Physical Dimensions: Is there any water present at this view? If so, is there an obvious current? no Substrate: 100% Cobble							4
Substrate: 100% Cobble	Physical Di						J
Substrate: 100% Cobble		mensions:	Is there an	y water pı	esent at this	view?	yes
Substrate: 100% Cobble % Gravel % Sand % Silt % Mud/Clay % Bedrock Aquatic Vegetation: (Note amount of vegetation or algal growth at the assessment site) Water Characteristics Odor Sewage Musky Chemical None Other Color Clear Green Gray Milky Other			If so, is the	re an obv	ious current?		no
100% Cobble							
100% Cobble							
100% Cobble							_
100% Cobble							
100% Cobble							
100% Cobble							
100% Cobble							
Mud/Clay % Bedrock							
Mud/Clay % Bedrock	% Gravel		0/ Sand		lo/, Cilt		1
Aquatic Vegetation: (Note amount of vegetation or algal growth at the assessment site) none Water Characteristics Odor Sewage Musky Chemical None Other Color Clear Green Gray Milky Other	70 Glavei		76 Sanu		/0 OIII		J
Aquatic Vegetation: (Note amount of vegetation or algal growth at the assessment site) none Water Characteristics Odor Sewage Musky Chemical None Other Color Clear Green Gray Milky Other	l% Bedrock	,	1				
mone Water Characteristics Odor Sewage Musky Chemical None Other Color Green Green Gray Milky Other	170 Boardon	1	1				
mone Water Characteristics Odor Sewage Musky Chemical None Other Color Green Green Gray Milky Other	(Note amou	ınt of veae	tation or al	gal growt	th at the asse	essment si	te)
Water Characteristics Odor Sewage Musky Chemical <u>None</u> Other Color <u>Clear</u> <u>Green</u> Gray Milky Other				J. J.			,
Water Characteristics Odor Sewage Musky Chemical <u>None</u> Other Color <u>Clear</u> <u>Green</u> Gray Milky Other							
Water Characteristics Odor Sewage Musky Chemical <u>None</u> Other Color <u>Clear</u> <u>Green</u> Gray Milky Other							
Water Characteristics Odor Sewage Musky Chemical <u>None</u> Other Color <u>Clear</u> <u>Green</u> Gray Milky Other							
Water Characteristics Odor Sewage Musky Chemical <u>None</u> Other Color <u>Clear</u> <u>Green</u> Gray Milky Other							
Water Characteristics Odor Sewage Musky Chemical <u>None</u> Other Color <u>Clear</u> <u>Green</u> Gray Milky Other							
Water Characteristics Odor Sewage Musky Chemical <u>None</u> Other Color <u>Clear</u> <u>Green</u> Gray Milky Other			none				
Odor Sewage Musky Chemical <u>None</u> Other Color <u>Clear</u> <u>Green</u> Gray Milky Other							
Color <u>Clear</u> <u>Green</u> Gray Milky Other	S						
	Sewage	Musky	Chemical	<u>None</u>	Other		
Bottom Deposit Sludge Solids Fine Sed. <i>None</i> Other	<u>Clear</u>	<u>Green</u>	Gray	Milky	Other		
· · · · · · · · · · · · · · · · · · ·	Sludge	Solids	Fine Sed.	<u>None</u>	Other		
Surface Deposit Oil Scum Foam <u>None</u> Other	Oil	Scum	Foam	<u>None</u>	Other		
		Musky		<u>None</u>	Other		
·		Sewage Clear Sludge	% Bedrock (Note amount of vege) s Sewage Musky Clear Green Sludge Solids	% Gravel % Sand % Bedrock (Note amount of vegetation or al none s Sewage Musky Chemical Clear Green Gray Sludge Solids Fine Sed.	% Gravel % Sand % Bedrock (Note amount of vegetation or algal growth) none s Sewage Musky Chemical None Clear Green Gray Milky Sludge Solids Fine Sed. None	% Gravel % Sand % Silt % Bedrock	% Gravel % Sand % Silt % Bedrock (Note amount of vegetation or algal growth at the assessment si none s Sewage Musky Chemical None Other Clear Green Gray Milky Other Sludge Solids Fine Sed. None Other

5

WBID#

737

Site #

Site # 5 Mark # 80 WBID # 737

ī	Depth (m)	•
Transect 1	0.05	Т
Substrate:	0.10	
cobble	0.25	
Water Clarity:	0.35	Wat
clear	0.35	
Channel Feature:	0.40	Channe
riffle	0.30	
Channel Width:	0.15	Chan
5 yards	0.05	
0.20	0.00	
Transect 2	0.00	Т
Substrate:	0.05	
cobble	0.15	
Water Clarity:	0.15	Wat
clear	0.15	
Channel Feature:	0.20	Channe
riffle	0.25	
Channel Width:	0.30	Chan
6 yards	0.20	
0.15	0.05	
Transect 3	0.06	Т
Substrate:	0.10	;
cobble	0.10	
Water Clarity:	0.25	Wat
clear	0.40	
Channel Feature:	0.40	Channe
riffle	0.40	
Channel Width:	0.30	Chan
7 yards	0.15	
0.20	0.05	
Transect 4	0.00	Т
Substrate:	0.10	;
cobble	0.15	
Water Clarity:	0.20	Wat
clear	0.25	
Channel Feature:	0.30	Channe
riffle	0.30	
Channel Width:	0.25	Chan
7 yards	0.15	
0.18	0.05	

	Depth (m)
Transect 5	0.00
Substrate:	0.05
cobble	0.05
Water Clarity:	0.10
clear	0.05
Channel Feature:	0.05
riffle	0.00
Channel Width:	0.00
4 yards	0.00
0.03	0.00
Transect 6	0.00
Substrate:	0.05
cobble	0.10
Water Clarity:	0.20
clear	0.30
Channel Feature:	0.20
riffle	0.20
Channel Width:	0.15
6 yards	0.05
0.13	0.00
Transect 7	0.05
Substrate:	0.10
cobble	0.10
Water Clarity:	0.05
clear	0.00
Channel Feature:	0.00
riffle	0.00
Channel Width:	0.00
7 yards	0.00
0.00	0.00
Transect 8	0.00
Substrate:	0.05
cobble	0.00
Water Clarity:	0.05
clear	0.05
Channel Feature:	0.00
riffle	0.10
Channel Width:	0.10
7 yards	0.00
0.03	0.00

	Depth (m)
Transect 9	0.00
Substrate:	0.00
cobble	0.00
Water Clarity:	0.00
clear	0.00
Channel Feature:	0.00
riffle	0.00
Channel Width:	0.00
6 yards	0.00
0.00	0.00
Transect 10	0.00
Substrate:	0.00
cobble	0.00
Water Clarity:	0.00
clear	0.05
Channel Feature:	0.00
riffle	0.00
Channel Width:	0.00
5 yards	0.00
0.00	0.00
Transect 11	0.00
Substrate:	0.05
cobble	0.10
Water Clarity:	0.20
murky	0.35
Channel Feature:	0.40
pool	0.40
Channel Width:	0.35
17 yards	0.35
0.28	0.10

Site Median Site Maximum 0.05 0.40

WBID 737 Site # 6

Date and Time: 8.30.07 9:20AM

Current Weather Conditions fair

Weather Conditions for Past 10 days: 0.88 in. max precipitation

Drought Conditions? No

Site Location (e.g. road crossing)

Backbone Rd.

GPS Mark: 81

Upstream Photo 12 Downstream Photo 13

Uses Observed (Uses actually observed at time of survey) Circle

Swimming Skin Diving SCUBA diving Tubing

Water Skiing Wind Surfing Kayaking Boating

Wading Rafting Hunting Trapping

Fishing <u>None of the Above</u> Other

Surrounding Conditions

City/county parks Playgrounds MDC conservation lands Urban areas

Campgrounds Boating accesses State parks <u>National Forests</u>

Nature trails Stairs/walkway No trespass sign Fence

<u>Steep slopes</u> None of the Above Other

Indications of Human Use

Rope

Roads <u>swings</u> <u>Pic #15</u> <u>Foot paths/prints</u> Dock/platform

<u>Camp</u>

Livestock Watering RV/ATV Tracks <u>Sites</u> <u>Pic#16</u> Fire pit/ring

NPDES Discharge Fishing Tackle <u>Other:</u> <u>inflatable raft, Pic#14</u>

WBID # Mark #	737 81			6 Oxygen (p		6.7		
Upstream	Views Phy	sical Dime	nsions:	Is there ar	ny water p	resent at this	view?	yes
				If so, is the	ere an obv	ious current?		no
		nel Feature	nnel featur	es:				1
Riffle Run		27 0						
Pool		73						
Downstrea	am View's	Physical D	imensions:			resent at this vious current?	view?	yes
Substrate:								
22% Cobbl	е	73% Grave	el	% Sand		% Silt		
% Mud/Cla	У	5% Bedroo	ck]				
Aquatic Ve	egetation:	(Note amou	unt of vege	tation or al	gal grow	th at the asse	essment si	te)
	vege	tation along	banks, 20%	ն small willo	w and alg	ae blooms in	stream	
Water Cha	racteristic	s						
Odor		Sewage	Musky	Chemical	<u>None</u>	Other		
Color		Clear	<u>Green</u>	Gray	Milky	<u>Other</u>		
Bottom De	posit	Sludge	Solids	Fine Sed.	<u>None</u>	Other		
Surface De	eposit	Oil	Scum	Foam	<u>None</u>	Other		

Site # 6 Mark # 81 WBID # 737

	Depth (m)		Depth (m)		Depth (m)
Transect 1	0.00	Transect 5	0.00	Transect 9	0.05
Substrate:	0.05	Substrate:	0.20	Substrate:	0.25
gravel	0.05	gravel	0.25	cobbly gravel	0.35
Water Clarity:	0.05	Water Clarity:	0.40	Water Clarity:	0.30
clear	0.05	murky	1.00	murky	0.30
Channel Feature:	0.00	Channel Feature:	1.00	Channel Feature:	0.30
pool	0.05	pool	1.00	pool	0.30
Channel Width:	0.00	Channel Width:	1.00	Channel Width:	0.25
23 yards	0.15	10 yards	1.00	19 yards	0.25
0.05	0.45	1.00	1.00	0.28	0.00
Transect 2	0.00	Transect 6	0.00	Transect 10	0.00
Substrate:	0.05	Substrate:	0.10	Substrate:	0.00
gravel	0.05	gravelly bedrock	0.25	cobbly gravel	0.00
Water Clarity:	0.10	Water Clarity:	0.40	Water Clarity:	0.00
murky	0.20	murky	0.70	N/A	0.00
Channel Feature:	0.40	Channel Feature:	0.90	Channel Feature:	0.00
pool	0.65	pool	0.85	riffle	0.00
Channel Width:	1.00	Channel Width:	0.70	Channel Width:	0.00
17 yards	1.00	10 yards	0.60	10 yards	0.00
0.30	0.45	0.50	0.25	0.00	0.00
Transect 3	0.00	Transect 7	0.10	Transect 11	0.00
Substrate:	0.05	Substrate:	0.00	Substrate:	0.00
gravel	0.15	cobbly gravel	0.45	cobbly gravel&sand	0.00
Water Clarity:	0.30	Water Clarity:	0.60	Water Clarity:	0.00
murky	0.45	murky	0.50	N/A	0.00
Channel Feature:	0.55	Channel Feature:	0.50	Channel Feature:	0.00
pool	0.30	pool	0.70	riffle	0.00
Channel Width:	0.40	Channel Width:	0.70	Channel Width:	0.00
13 yards	0.40	17 yards	0.10	10 yards	0.00
0.33	0.35	0.48	0.05	0.00	0.00
Transect 4	0.00	Transect 8	0.05		
Substrate:	0.05	Substrate:	0.30	Site Median	Site Maximum
gravel	0.10	cobbly gravel	0.30	0.18	1.00
Water Clarity:	0.15	Water Clarity:	0.35		
murky	0.10	murky	0.45		
Channel Feature:	0.05	Channel Feature:	0.45		
riffle	0.10	pool	0.35		
Channel Width:	0.20	Channel Width:	0.40		
13 yards	0.30	24 yards			
0.10	0.10	0.33	0.10		

WBID 737 Site # 7

Date and Time: 8.30.07 10:00AM

Current Weather Conditions clear

Weather Conditions for Past 10 days: 0.88 in. max precipitation

Drought Conditions? No

Site Location (e.g. road crossing) downstream from site#6

GPS Mark: 82

Upstream Photo 18 Downstream Photo 17

Uses Observed (Uses actually observed at time of survey) Circle

Swimming Skin Diving SCUBA diving Tubing

Water Skiing Wind Surfing Kayaking Boating

Wading Rafting Hunting Trapping

Fishing <u>None of the Above</u> Other

Surrounding Conditions

City/county parks Playgrounds MDC conservation lands Urban areas

Campgrounds Boating accesses State parks National Forests

Nature trails Stairs/walkway No trespass sign Fence

Steep slopes None of the Above Other

Indications of Human Use

Roads Rope swings Foot paths/prints Dock/platform

Livestock Watering RV/ATV Tracks Camping Sites Fire pit/ring

WBID#	737	•	Site #	7				
Mark#	82			Oxygen (p		6.7		
Upstream V	iews Phy	sical Dime	nsions:	Is there ar	ny water p	resent at this	view?	no
				If so, is the	re an obv	vious current?		no
Select one		l owing cha nel Feature		es:				
Riffle		46]
Run		18						
Pool		36						
Downstream	n View's	Physical D	imensions:			resent at this		yes no
]
L]
Substrate:								
								-
59% Cobble	!	9% Gravel		14% Sand		% Silt]
		•		14% Sand		% Silt]
59% Cobble % Mud/Clay		9% Gravel		14% Sand		% Silt]
% Mud/Clay		18% Bedro	ock]	gal grow	% Silt	essment si] te)
% Mud/Clay		18% Bedro	ock]	gal grow		essment si	te)
% Mud/Clay		18% Bedro	ock]	gal grow		essment si	te)
% Mud/Clay		18% Bedro	ock]	gal grow		essment si	te)
% Mud/Clay		18% Bedro	ock]	gal grow		essment si	te)
% Mud/Clay		18% Bedro	ock unt of vege]		th at the asse	essment si	te)
% Mud/Clay	getation:	18% Bedro	ock unt of vege	tation or al		th at the asse	essment si	te)
% Mud/Clay	getation:	18% Bedro	ock unt of vege	tation or al		th at the asse	essment si	te)
% Mud/Clay Aquatic Veg	getation:	18% Bedro	ock unt of vege	tation or al	e bloom ir	th at the asse	essment si	te)
% Mud/Clay Aquatic Veg Water Char	getation:	(Note amou	ock unt of vege small willo	tation or all	e bloom in <u>None</u> Milky	th at the asso		te)
% Mud/Clay Aquatic Veg Water Char Odor Color	getation: acteristic	18% Bedro (Note amou	ock unt of vege small willo Musky Green	tation or all w and algae Chemical Gray	e bloom in <u>None</u> Milky	th at the assets a stream Other		te)
Mud/Clay Aquatic Veg Water Char Odor Color Bottom Depo	getation: acteristic	80% Sewage Clear Sludge	ock unt of vege small willo Musky Green Solids	tation or all w and algae Chemical Gray Fine Sed.	None Milky None	other Other Other		te)

Site #7 Mark # 82 WBID # 737

_	Depth (m)		Depth (m)		Depth (m)
Transect 1	0.00	Transect 5	0.00	Transect 9	0.05
Substrate:	0.00	Substrate:	0.05	Substrate:	0.25
cobble	0.00	cobble	0.05	cobble	0.30
Water Clarity:	0.00	Water Clarity:	0.05	Water Clarity:	0.10
N/A	0.00	clear	0.05	clear	0.10
Channel Feature:	0.00	Channel Feature:	0.00	Channel Feature:	0.30
run	0.00	riffle	0.10	pool	0.45
Channel Width:	0.00	Channel Width:	0.15	Channel Width:	0.15
35 yards	0.00	4 yards	0.15	10 yards	0.30
0.00	0.00	0.05	0.05	0.20	0.10
Transect 2	0.00	Transect 6	0.00	Transect 10	0.05
Substrate:	0.00	Substrate:	0.00	Substrate:	0.15
cobbly gravel	0.00	cobbly sand	0.00	cobbly sand	0.35
Water Clarity:	0.00	Water Clarity:	0.00	Water Clarity:	0.60
N/A	0.00	clear	0.05	murky	0.60
Channel Feature:	0.00	Channel Feature:	0.00	Channel Feature:	0.50
riffle	0.00	riffle	0.00	pool	0.35
Channel Width:	0.00	Channel Width:	0.00	Channel Width:	0.10
27 yards	0.00	5 yards	0.00	12 yards	0.00
0.00	0.00	0.00	0.00	0.25	0.00
Transect 3	0.00	Transect 7	0.00	Transect 11	0.10
Substrate:	0.00	Substrate:	0.00	Substrate:	0.50
cobbly sand	0.00	cobble	0.00	bedrock	0.65
Water Clarity:	0.05	Water Clarity:	0.00	Water Clarity:	0.55
murky	0.05	N/A	0.00	murky	0.60
Channel Feature:	0.20	Channel Feature:	0.00	Channel Feature:	0.50
riffle	0.10	run	0.00	pool	0.35
Channel Width:	0.15	Channel Width:	0.00	Channel Width:	0.35
13 yards	0.15	2 yards	0.00	12 yards	0.50
0.08	0.15	0.00	0.00	0.50	0.00
Transect 4	0.00	Transect 8	0.00		
Substrate:	0.00	Substrate:	0.20	Site Median	Site Maximum
cobbly gravel	0.00	bedrock	0.30	0.03	0.65
Water Clarity:	0.10	Water Clarity:	0.30		
clear	0.05	murky	0.25		
Channel Feature:	0.00	Channel Feature:	0.20		
riffle	0.00	pool	0.15		
Channel Width:	0.00	Channel Width:	0.15		
8 yards	0.05	6 yards	0.05		
0.00	0.05	0.18	0.00		

WBID 737 Site # 8

Date and Time: 8.30.07 11:50AM

Current Weather Conditions cloudy

Weather Conditions for Past 10 days: 0.88 in. max precipitation

Drought Conditions? No

Site Location (e.g. road crossing) downstream Hwy AB

GPS Mark: 83

Upstream Photo 19 Downstream Photo 20

Uses Observed (Uses actually observed at time of survey) Circle

Swimming Skin Diving SCUBA diving Tubing

Water Skiing Wind Surfing Kayaking Boating

Wading Rafting Hunting Trapping

Fishing <u>None of the Above</u> Other

Surrounding Conditions

City/county parks Playgrounds MDC conservation lands Urban areas

Campgrounds Boating accesses State parks <u>National Forests</u>

Nature trails Stairs/walkway No trespass sign Fence

Steep slopes None of the Above Other

Indications of Human Use

Roads Rope swings Foot paths/prints Dock/platform

Livestock Watering RV/ATV Tracks Camping Sites Fire pit/ring

Mark# 8			Oxygen (p	. ,	7.2		
Upstream views Pn	stream Views Physical Dimensions: Is there any water present at this view?						yes
			If so, is the	ere an obv	ious current?		no
Select one of the fo	llowing cha		es:				
Riffle	27	'		Π	T		1
Run	0						1
Pool	73						
Downstream View's	Physical D	imensions:	Is there an	y water p	resent at this	view?	yes
			If so, is the	ere an obv	rious current?		no
Substrate:							
36% Cobble	9% Gravel		5% Sand		18% Silt		
			-		•		_
% Mud/Clay	32% Bedro	ock					
Aguatic Vogotation	/Noto amo	unt of yogo	tation or al	gal grow	th at the acc	ocemont ci	to)
Aquatic Vegetation	(Note amor	unit or vege	tation or ar	gai grow	in at the assi	essinent si	ie)
		400/		4			
		10% Sr	nall willow in	n stream.			
Water Characteristi	cs						
Odor	Sewage	Musky	Chemical	None	<u>Other</u>	<u>cattle</u>	
Color	Clear	<u>Green</u>	Gray	Milky	<u>Other</u>	<u>brown</u>	
Bottom Deposit	Sludge	Solids	Fine Sed.	<u>None</u>	Other		
Surface Deposit	<u>Oil</u>	<u>Scum</u>	Foam	None	Other		

8

WBID#

737

Site #

Site # 8 Mark # 83 WBID # 737

	Depth (m)	
Transect 1	0.15	
Substrate:	0.40	
cobbly silt	0.40	
Water Clarity:	0.45	W
murky	0.50	
Channel Feature:	0.45	Chan
riffle	0.65	
Channel Width:	0.80	Cha
19 yards	0.65	
0.45	0.15	
Transect 2	0.20	
Substrate:	0.50	
bedrock	0.60	
Water Clarity:	0.85	W
murky	0.95	
Channel Feature:	0.80	Chan
pool	0.70	
Channel Width:	0.60	Cha
17 yards	0.55	
0.60	0.50	
Transect 3	0.25	
Substrate:	0.35	
cobbly silt	0.40	
Water Clarity:	0.45	W
murky	0.35	
Channel Feature:	0.25	Chan
pool	0.20	
Channel Width:	0.00	Cha
30 yards	0.15	
0.25	0.05	
Transect 4	0.15	
Substrate:	0.45	
cobbly silt	1.00	g
Water Clarity:	1.00	W
murky	1.00	
Channel Feature:	1.00	Chan
pool	0.90	
Channel Width:	0.85	Cha
29 yards	0.80	
0.88	0.60	

	Depth (m)
Transect 5	0.15
Substrate:	0.65
bedrock	0.80
Water Clarity:	1.00
murky	1.00
Channel Feature:	1.00
pool	1.00
Channel Width:	0.75
23 yards	0.70
0.78	0.50
Transect 6	0.20
Substrate:	0.35
bedrock	0.70
Water Clarity:	1.00
murky	0.85
Channel Feature:	0.85
pool	0.85
Channel Width:	0.95
27 yards	0.50
0.78	0.65
Transect 7	0.25
Substrate:	0.50
gravelly silt	0.75
Water Clarity:	0.85
murky	0.95
Channel Feature:	1.00
pool	0.75
Channel Width:	0.70
23 yards	0.50
0.73	0.20
Transect 8	0.10
Substrate:	0.20
gravelly sand	0.30
Water Clarity:	0.30
murky	0.30
Channel Feature:	0.35
pool	0.40
Channel Width:	0.35
15 yards	0.30
0.30	0.05

-	Depth (m)
Transect 9	0.00
Substrate:	0.05
cobble	0.00
Water Clarity:	0.00
clear	0.00
Channel Feature:	0.00
riffle	0.15
Channel Width:	0.15
26 yards	0.05
0.00	0.00
Transect 10	0.10
Substrate:	0.00
cobble	0.00
Water Clarity:	0.00
clear	0.00
Channel Feature:	0.15
riffle	0.05
Channel Width:	0.00
17 yards	0.00
0.00	0.00
Transect 11	0.15
Substrate:	0.30
cobbly bedrock	0.25
Water Clarity:	0.20
clear	0.25
Channel Feature:	0.25
pool	0.20
Channel Width:	0.15
12 yards	0.00
0.20	0.00

Site Median Site Maximum 0.35 1.00

WBID 737 Site # 9

Date and Time: 8.30.07 12:45PM

Current Weather Conditions cloudy

Weather Conditions for Past 10 days: 0.88 in. max precipitation

Drought Conditions? No

Site Location (e.g. road crossing) downstream from site#8

GPS Mark: 84

Upstream Photo 22 Downstream Photo 21

Uses Observed (Uses actually observed at time of survey) Circle

Swimming Skin Diving SCUBA diving Tubing

Water Skiing Wind Surfing Kayaking Boating

Wading Rafting Hunting Trapping

Fishing None of the Above Other

Surrounding Conditions

City/county parks Playgrounds MDC conservation lands Urban areas

Campgrounds Boating accesses State parks National Forests

Nature trails Stairs/walkway No trespass sign Fence

Steep slopes None of the Above Other

Indications of Human Use

Roads Rope swings Foot paths/prints Dock/platform

Livestock Watering RV/ATV Tracks Camping Sites Fire pit/ring

	34		d Oxygen (բ		8.1		
Upstream Views Ph	ysical Dime	ensions:	Is there a	ny water p	resent at this	view?	yes
			If so, is the	ere an obv	vious current?		no
Select one of the fo			res:				
	nnel Feature	9	1			1	_
Riffle	27						_
Run	37						
Pool	36						
Downstream View's	s Physical D)imensions					yes
			If so, is the	ere an obv	vious current?		no
			T	_			_
							_
Substrate:							
27% Cobble	% Gravel		% Sand		% Silt		
	'		% Sand		% Silt		
27% Cobble % Mud/Clay	% Gravel	rock	% Sand		% Silt		
	73% Bedr			lgal grow		essment :	site)
% Mud/Clay	73% Bedr			lgal grow		essment :	site)
% Mud/Clay	73% Bedr			lgal grow		essment s	site)
% Mud/Clay	73% Bedr			lgal grow		essment :	site)
% Mud/Clay	73% Bedr			lgal grow		essment :	site)
% Mud/Clay	73% Bedr			lgal grow		essment s	site)
% Mud/Clay	73% Bedr		etation or a	lgal grow		essment s	site)
% Mud/Clay	73% Bedr			lgal grow		essment :	site)
% Mud/Clay	73% Bedr		etation or a	lgal grow		essment :	site)
% Mud/Clay Aquatic Vegetation	73% Bedr		etation or a	lgal grow		essment :	site)
% Mud/Clay Aquatic Vegetation Water Characterist	73% Bedr	ount of vege	etation or a		th at the ass	essment :	site)
% Mud/Clay Aquatic Vegetation Water Characteristic	73% Bedr : (Note amo	ount of vego	none Chemical	None	th at the asso	essment :	site)
Mud/Clay Aquatic Vegetation Water Characteristi Odor Color	73% Bedrics Sewage Clear	Musky Green	none Chemical Gray	<u>None</u> Milky	th at the asset	essment	site)

9

737

WBID#

Site #

Site # 9 Mark # 84 WBID # 737

	Depth (m)		Depth (m)		Depth (m)
Transect 1	0.00	Transect 5	0.00	Transect 9	0.00
Substrate:	0.00	Substrate:	0.00	Substrate:	0.00
cobbly bedrock	0.00	cobbly bedrock	0.00	bedrock	0.00
Water Clarity:	0.00	Water Clarity:	0.00	Water Clarity:	0.00
N/A	0.00	clear	0.10	clear	0.00
Channel Feature:	0.00	Channel Feature:	0.05	Channel Feature:	0.00
run	0.00	pool	0.15	run	0.00
Channel Width:	0.00	Channel Width:	0.05	Channel Width:	0.00
9 yards	0.00	8 yards	0.00	5 yards	0.05
0.00	0.00	0.00	0.00	0.00	0.00
Transect 2	0.00	Transect 6	0.00	Transect 10	0.00
Substrate:	0.00	Substrate:	0.05	Substrate:	0.10
cobbly bedrock	0.00	bedrock	0.10	cobbly bedrock	0.10
Water Clarity:	0.00	Water Clarity:	0.05	Water Clarity:	0.15
N/A	0.00	clear	0.15	clear	0.15
Channel Feature:	0.00	Channel Feature:	0.10	Channel Feature:	0.15
run	0.00	riffle	0.20	pool	0.15
Channel Width:	0.00	Channel Width:	0.20	Channel Width:	0.00
12 yards	0.00	4 yards	0.05	6 yards	0.05
0.00	0.00	0.08	0.00	0.10	0.00
Transect 3	0.00	Transect 7	0.00	Transect 11	0.05
Substrate:	0.05	Substrate:	0.00	Substrate:	0.10
cobbly bedrock	0.00	bedrock	0.00	cobbly bedrock	0.15
Water Clarity:	0.00	Water Clarity:	0.00	Water Clarity:	0.20
clear	0.00	clear	0.00	clear	0.10
Channel Feature:	0.00	Channel Feature:	0.00	Channel Feature:	0.15
riffle	0.00	run	0.00	pool	0.10
Channel Width:	0.00	Channel Width:	0.05	Channel Width:	0.15
10 yards	0.00	5 yards	0.00	6 yards	0.15
0.00	0.00	0.00	0.00	0.15	0.15
Transect 4	0.10	Transect 8	0.00		
Substrate:	0.20	Substrate:	0.00	Site Median	Site Maximum
bedrock	0.20	bedrock	0.00	0.00	0.20
Water Clarity:	0.20	Water Clarity:	0.05		
clear	0.05	clear	0.00		
Channel Feature:	0.10	Channel Feature:	0.10		
pool	0.05	riffle	0.10		
Channel Width:	0.00	Channel Width:	0.00		
7 yards	0.00	6 yards	0.05		
0.08	0.00	0.00	0.00		

WBID 737 Site # 10

Date and Time: 8.30.07 2:15PM

Current Weather Conditions partly cloudy

Weather Conditions for Past 10 days: 0.88 in. max precipitation

Drought Conditions? No

Site Location (e.g. road crossing) upstream site #8

GPS Mark: 118

Upstream Photo 24 Downstream Photo 23

Uses Observed (Uses actually observed at time of survey) Circle

Swimming Skin Diving SCUBA diving Tubing

Water Skiing Wind Surfing Kayaking Boating

Wading Rafting Hunting Trapping

Fishing None of the Above Other

Surrounding Conditions

City/county parks Playgrounds MDC conservation lands Urban areas

Campgrounds Boating accesses State parks <u>National Forests</u>

Nature trails Stairs/walkway No trespass sign Fence

Steep slopes None of the Above Other

Indications of Human Use

Roads Rope swings Foot paths/prints Dock/platform

Livestock Watering RV/ATV Tracks Camping Sites Fire pit/ring

Mark #	118			Oxygen (p	pm)	7.5		
Upstream	Views Phy	sical Dime	nsions:	Is there ar	ıy water p	resent at this	view?	yes
				If so, is the	re an obv	ious current?		no
Select one		l owing cha nel Feature	nnel featur	es:				
Riffle	70 OI OIIGII	45	'					1
Run								†
Pool		55						
Downstrea	ım View's	Physical D	imensions:		-	esent at this		yes
				If so, is the	re an obv	ious current?		no
				1				1
]
]
Substrate:								
54% Cobbl	e	14% Grave	el	% Sand		5% Silt]
% Mud/Cla	V	27% Bedro	nck	1				_
		•		1				
Aquatic Ve	getation:	(Note amou	unt of vege	tation or al	gal growt	h at the asse	essment si	te)
			20% sı	mall willow i	n stream			
Water Cha	racteristic	s						
Odor		Sewage	Musky	Chemical	<u>None</u>	Other		
Color		Clear	<u>Green</u>	Gray	Milky	<u>Other</u>	<u>murky</u>	
Bottom Dep	oosit	Sludge	Solids	Fine Sed.	None	Other		
Surface De	posit	<u>Oil</u>	<u>Scum</u>	Foam	None	Other		

737

WBID#

Site #

10

Site # 10 Mark # 118 WBID # 737

	Depth (m)
Transect 1	0.05
Substrate:	0.15
cobble	0.10
Water Clarity:	0.00
clear	0.00
Channel Feature:	0.00
pool	0.00
Channel Width:	0.00
27 yards	0.00
0.00	0.00
Transect 2	0.20
Substrate:	0.40
cobbly bedrock	0.45
Water Clarity:	0.55
murky	0.50
Channel Feature:	0.55
pool	0.40
Channel Width:	0.40
29 yards	0.30
0.40	0.10
Transect 3	0.15
Substrate:	0.25
cobbly bedrock	0.40
Water Clarity:	0.35
murky	0.45
Channel Feature:	0.40
pool	0.35
Channel Width:	0.30
13 yards	0.05
0.33	0.00
Transect 4	0.10
Substrate:	0.20
cobbly bedrock	0.30
Water Clarity:	0.35
murky	0.35
Channel Feature:	0.35
pool	0.30
Channel Width:	0.30
17 yards	0.25
0.30	0.05

-	Depth (m)
Transect 5	0.00
Substrate:	0.05
cobbly bedrock	0.05
Water Clarity:	0.10
murky	0.15
Channel Feature:	0.20
riffle	0.25
Channel Width:	0.30
17 yards	0.35
0.18	0.40
Transect 6	0.25
Substrate:	0.20
cobbly bedrock	0.20
Water Clarity:	0.15
murky	0.15
Channel Feature:	0.15
riffle	0.10
Channel Width:	0.05
22 yards	0.00
0.15	0.00
Transect 7	0.10
Substrate:	0.10
cobbly bedrock	0.10
Water Clarity:	0.10
murky	0.10
Channel Feature:	0.20
riffle	0.15
Channel Width:	0.10
9 yards	0.05
0.10	0.00
Transect 8	0.00
Substrate:	0.00
cobbly gravel	0.00
Water Clarity:	0.00
N/A	0.00
Channel Feature:	0.00
riffle	0.00
Channel Width:	0.00
6 yards	0.00
0.00	0.00

	Depth (m)
Transect 9	0.00
Substrate:	0.00
cobbly gravel	0.00
Water Clarity:	0.00
N/A	0.00
Channel Feature:	0.00
riffle	0.00
Channel Width:	0.00
9 yards	0.00
0.00	0.00
Transect 10	0.35
Substrate:	0.50
cobbly gravel	0.55
Water Clarity:	0.65
murky	0.50
Channel Feature:	0.30
pool	0.15
Channel Width:	0.15
13 yards	0.10
0.33	0.00
Transect 11	0.15
Substrate:	0.35
cobbly silt	0.50
Water Clarity:	0.60
clear	0.70
Channel Feature:	0.70
pool	0.55
Channel Width:	0.40
15 yards	0.25
0.45	0.10

Site Median Site Maximum 0.15 0.70

WBID 737 Site # 11

Date and Time: 8.30.07 4:30PM

Current Weather Conditions fair

Weather Conditions for Past 10 days: 0.88 in. max precipitation

Drought Conditions? No

Site Location (e.g. road crossing) downstream from Hwy WW

GPS Mark: 119

Upstream Photo 26 Downstream Photo 25

Uses Observed (Uses actually observed at time of survey) Circle

Swimming Skin Diving SCUBA diving Tubing

Water Skiing Wind Surfing Kayaking Boating

Wading Rafting Hunting Trapping

Fishing <u>None of the Above</u> Other

Surrounding Conditions

City/county parks Playgrounds MDC conservation lands Urban areas

Campgrounds Boating accesses State parks <u>National Forests</u>

Nature trails Stairs/walkway <u>No trespass sign</u> <u>Fence</u>

Steep slopes None of the Above Other

Indications of Human Use

Roads Rope swings Foot paths/prints Dock/platform

Livestock Watering RV/ATV Tracks Camping Sites Fire pit/ring

WBID#	737		Site #	11		5.0		
Mark # Upstream	119 Views Phy	sical Dime		Oxygen (p Is there ar		5.3 resent at this		yes
				If so is the	ro an obv	ious current?		no
				11 50, 15 1116	ile all obv	ious current:		110
Select one		owing char nel Feature		es:				
Riffle	70 OI CHAIT	36]
Run		C.4						
Pool		64		<u> </u>				J
Downstrea	am View's I	Physical Di	mensions:	Is there an	y water pr	esent at this	view?	yes
				If so, is the	re an obv	ious current?		no
_								_
•								_
Substrate:								
070/ Cabbl		1000/ Crave	. 1	E0/ Cand		% Silt		1
27% Cobbl	e	68% Grave)	5% Sand		% SIII		J
% Mud/Cla	У	% Bedrock]				
Aquatic Ve	egetation:	(Note amou	ınt of vege	tation or al	gal grow	th at the asso	essment si	te)
_								•
				none				
Water Cha	racteristic	s						
Odor		Sewage	Musky	Chemical	<u>None</u>	Other		
Color		Clear	<u>Green</u>	Gray	Milky	<u>Other</u>		
Bottom Dep	posit	Sludge	Solids	Fine Sed.	<u>None</u>	Other		

Site # 11 WBID # 737

	Depth (m)
Transect 1	0.05
Substrate:	0.15
gravelly cobble	0.15
Water Clarity:	0.20
murky	0.25
Channel Feature:	0.30
pool	0.30
Channel Width:	0.25
13 yards	0.20
0.20	0.05
Transect 2	0.00
Substrate:	0.15
gravelly cobble	0.10
Water Clarity:	0.10
murky	0.10
Channel Feature:	0.10
pool	0.10
Channel Width:	0.05
16 yards	0.10
0.10	0.05
Transect 3	0.00
Substrate:	0.10
gravel	0.10
Water Clarity:	0.15
murky	0.25
Channel Feature:	0.50
pool	0.55
Channel Width:	0.55
16 yards	0.45
0.20	0.15
Transect 4	0.05
Substrate:	0.10
gravel	0.30
Water Clarity:	0.45
murky	0.40
Channel Feature:	0.30
pool	0.35
Channel Width:	0.35
16 yards	0.45
0.33	0.15

-	Depth (m)
Transect 5	0.00
Substrate:	0.10
gravel	0.15
Water Clarity:	0.15
murky	0.15
Channel Feature:	0.25
pool	0.20
Channel Width:	0.15
8 yards	0.10
0.15	0.05
Transect 6	0.00
Substrate:	0.20
cobbly gravel	0.30
Water Clarity:	0.25
clear	0.20
Channel Feature:	0.15
pool	0.20
Channel Width:	0.15
12 yards	0.15
0.18	0.10
Transect 7	0.00
Substrate:	0.00
cobbly gravel	0.00
Water Clarity:	0.05
clear	0.00
Channel Feature: riffle	0.00
Channel Width:	0.00
	0.00
17 yards 0.00	0.00
Transect 8	0.10
Substrate:	0.25
cobbly gravel	0.15
Water Clarity:	0.00
clear	0.00
Channel Feature:	0.00
riffle	0.00
Channel Width:	0.00
10 yards	0.00
0.00	0.00

_	Depth (m)
Transect 9	0.05
Substrate:	0.25
cobbly gravel	0.20
Water Clarity:	0.10
clear	0.00
Channel Feature:	0.00
riffle	0.00
Channel Width:	0.00
7 yards	0.00
0.00	0.00
Transect 10	0.05
Substrate:	0.00
gravelly sand	0.10
Water Clarity:	0.25
murky	0.30
Channel Feature:	0.20
pool	0.10
Channel Width:	0.05
15 yards	0.00
0.08	0.00
Transect 11	0.00
Substrate:	0.00
gravel	0.00
Water Clarity:	0.00
clear	0.00
Channel Feature:	0.00
riffle	0.05
Channel Width:	0.10
10 yards	0.10
0.00	0.05

Site Median Site Maximum 0.10 0.55

Field Data Sheets for Recreational Use Stream Surveys Data Sheet B - Site Characterization (must be completed for each site)

WBID 737 Site # 12

Date and Time: 8.30.07 5:30

Current Weather Conditions fair

Weather Conditions for Past 10 days: 0.88 in. max precipitation

Drought Conditions? No

Site Location (e.g. road crossing) upstream from Hwy WW

GPS Mark: 120

Upstream Photo 27 Downstream Photo 28

Uses Observed (Uses actually observed at time of survey) Circle

Swimming Skin Diving SCUBA diving Tubing

Water Skiing Wind Surfing Kayaking Boating

Wading Rafting Hunting Trapping

Fishing <u>None of the Above</u> Other

Surrounding Conditions

City/county parks Playgrounds MDC conservation lands Urban areas

Campgrounds Boating accesses State parks National Forests

Nature trails Stairs/walkway No trespass sign Fence

Steep slopes None of the Above Other

Indications of Human Use

Roads Rope swings Foot paths/prints Dock/platform

Livestock Watering RV/ATV Tracks Camping Sites Fire pit/ring

NPDES Discharge Fishing Tackle Other:

Mark #	120			l Oxygen (p		8.6				
Upstream	Views Phy	sical Dime	nsions:	Is there a	ny water p	resent at this	s view?	yes		
				If so, is the	ere an obv	vious current?	•	no		
Select one of the following channel features: % of Channel Feature										
Riffle	70 01 0116.1	36						7		
Run								1		
Pool		64]		
								yes		
				If so, is the	ere an obv	vious current?	•	no		
								٦		
								1		
Substrate:										
50% Cobb	le	9% Grave		5% Sand		9% Silt		7		
				_				_		
% Mud/Cla	ау	27% Bedro	ock							
Aquatic V	ogotation:	(Note amo	unt of yogo	tation or al	aal arow	th at the ass	ocemont c	ito)		
Aquatic v	egetation.	(Note anio	unt or vege	tation or a	gai giow	iii at tiie ass	essilielit s	ite)		
				none						
				110116						
Water Cha	aracteristic	s								
Odor		Sewage	Musky	Chemical	<u>None</u>	Other				
Color		Clear	<u>Green</u>	Gray	Milky	<u>Other</u>	<u>murky</u>			
Bottom De	posit	Sludge	Solids	Fine Sed.	None	Other				
Surface De	eposit	Oil	<u>Scum</u>	Foam	None	Other				

12

Site #

WBID#

737

Data Sheet C: Cross-Sectional Depth Measurements (for estimation of median depth) (Median Depth Shown in Bold)

Site # 12 Mark # 120 WBID # 737

	Depth (m)		Depth (m)		Depth (m)
Transect 1	0.00	Transect 5	0.40	Transect 9	0.05
Substrate:	0.05	Substrate:	0.75	Substrate:	0.45
cobble	0.05	cobbly silt	0.80	cobbly bedrock	0.60
Water Clarity:	0.10	Water Clarity:	0.85	Water Clarity:	0.80
clear	0.15	murky	0.80	murky	0.80
Channel Feature:	0.15	Channel Feature:	0.75	Channel Feature:	0.80
riffle	0.10	pool	0.70	pool	0.75
Channel Width:	0.05	Channel Width:	0.55	Channel Width:	0.65
4 yards	0.05	21 yards	0.30	23 yards	0.55
0.05	0.00	0.73	0.05	0.63	0.20
Transect 2	0.00	Transect 6	0.05	Transect 10	0.30
Substrate:	0.05	Substrate:	0.30	Substrate:	0.65
cobble	0.10	cobbly silt	0.65	cobbly bedrock	0.75
Water Clarity:	0.15	Water Clarity:	0.85	Water Clarity:	0.75
clear	0.25	murky	0.95	murky	0.80
Channel Feature:	0.30	Channel Feature:	0.95	Channel Feature:	0.70
riffle	0.30	pool	1.00	pool	0.70
Channel Width:	0.20	Channel Width:	1.00	Channel Width:	0.65
4 yards	0.15	17 yards	0.60	22 yards	0.70
0.15	0.05	0.75	0.45	0.70	0.20
Transect 3	0.00	Transect 7	0.15	Transect 11	0.35
Substrate:	0.00	Substrate:	0.50	Substrate:	0.75
cobbly gravel	0.00	bedrock	0.85	cobbly sand	0.80
Water Clarity:	0.00	Water Clarity:	1.00	Water Clarity:	0.80
clear	0.00	murky	1.00	murky	0.70
Channel Feature:	0.00	Channel Feature:	1.00	Channel Feature:	0.75
riffle	0.00	pool	1.00	pool	0.75
Channel Width:	0.00	Channel Width:	1.00	Channel Width:	0.75
4 yards	0.05	15 yards	1.00	22 yards	0.70
0.00	0.00	1.00	1.00	0.75	0.45
Transect 4	0.05	Transect 8	0.10		
Substrate:	0.20	Substrate:	0.55	Site Median	Site Maximum
cobbly gravel	0.00	bedrock	0.80	0.48	1.00
Water Clarity:	0.00	Water Clarity:	0.85		
clear	0.00	murky	0.85		
Channel Feature:	0.10	Channel Feature:	0.80		
riffle	0.25	pool	0.85		
Channel Width:	0.30	Channel Width:	0.85		
27 yards	0.20	15 yards	0.65		
0.10	0.10	0.80	0.50		

Field Data Sheets for Recreational Use Stream Surveys Data Sheet B - Site Characterization (must be completed for each site)

WBID 737 Site # 13

Date and Time: 8.30.07 6:20PM

Current Weather Conditions fair

Weather Conditions for Past 10 days: 0.88 in. max precipitation

Drought Conditions? No

Site Location (e.g. road crossing) upstream site #11

GPS Mark: 121

Upstream Photo 29 Downstream Photo 30

Uses Observed (Uses actually observed at time of survey) Circle

Swimming Skin Diving SCUBA diving Tubing

Water Skiing Wind Surfing Kayaking Boating

Wading Rafting Hunting Trapping

Fishing <u>None of the Above</u> Other

Surrounding Conditions

City/county parks Playgrounds MDC conservation lands Urban areas

Campgrounds Boating accesses State parks National Forests

Nature trails Stairs/walkway No trespass sign Fence

Steep slopes None of the Above Other

Indications of Human Use

Roads Rope swings Foot paths/prints Dock/platform

Livestock Watering RV/ATV Tracks Camping Sites Fire pit/ring

NPDES Discharge Fishing Tackle Other:

Mark #	121		d Oxygen (p		7.8				
Upstream Views	S Physical Dime	ensions:	Is there a	ny water	present at this	s view?	yes		
			If so, is the	ere an ob	vious current?	>	no		
Select one of the following channel features: % of Channel Feature									
Riffle	27	,							
Run	0			+			_		
Pool	63			1					
Downstream View's Physical Dimensions: Is there any water present at this view?									
			If so, is the	ere an ob	vious current?	>	no		
					1				
			1	1		1			
			•				<u>-</u>		
Substrate:									
23% Cobble	50% Grav	el	27% Sand		% Silt		\neg		
•	•				•				
% Mud/Clay	% Bedroc	k							
Aquatic Vegetat	ion: (Note amo	unt of veg	etation or a	lgal grov	vth at the ass	essment	site)		
			none						
			ПОПС						
Water Character	ristics								
Odor	Sewage	Musky	Chemical	<u>None</u>	Other				
Color	Clear	<u>Green</u>	Gray	Milky	Other				
Bottom Deposit	Sludge	Solids	Fine Sed.	<u>None</u>	Other				
Surface Deposit	Oil	Scum	Foam	<u>None</u>	Other				

Site #

13

WBID#

737

Data Sheet C: Cross-Sectional Depth Measurements (for estimation of median depth) (Median Depth Shown in Bold)

0.05 0.10 0.15 0.15 0.15

0.15 0.10 0.00 0.05 0.05 0.15 0.15 0.10

0.25 0.20 0.15 0.05 0.45 0.60 0.70 0.65 0.55

0.35 0.25 0.15 0.05 0.00 0.10

0.15

0.25 0.30 0.35 0.30 0.20 0.10

Site # 13 Mark # 121 WBID # 737

_	Depth (m)	_	Depth (m)
Transect 1	0.05	Transect 5	0.0
Substrate:	0.30	Substrate:	0.
sandy gravel	0.55	cobbly gravel	0.
Water Clarity:	0.45	Water Clarity:	0.
clear	0.05	clear	0.
Channel Feature:	0.00	Channel Feature:	0.
pool	0.05	pool	0.
Channel Width:	0.15	Channel Width:	0.
8 yards	0.20	5 yards	0.
0.13	0.10	0.15	0.0
Transect 2	0.05	Transect 6	0.0
Substrate:	0.10	Substrate:	0.0
cobbly gravel	0.15	cobbly gravel	0.
Water Clarity:	0.15	Water Clarity:	0.
clear	0.15	clear	0.
Channel Feature:	0.20	Channel Feature:	0.2
pool	0.25	pool	0.2
Channel Width:	0.20	Channel Width:	0.2
9 yards	0.25	8 yards	0.
0.18	0.20	0.15	0.0
Transect 3	0.00	Transect 7	0.
Substrate:	0.00	Substrate:	0.4
cobbly gravel	0.00	gravelly sand	0.0
Water Clarity:	0.05	Water Clarity:	0.
clear	0.05	clear	0.0
Channel Feature:	0.05	Channel Feature:	0.9
pool	0.05	pool	0.3
Channel Width:	0.00	Channel Width:	0.2
2 yards	0.05	6 yards	0.
0.03	0.00	0.40	0.0
Transect 4	0.05	Transect 8	0.0
Substrate:	0.10	Substrate:	0.
cobbly gravel	0.05	gravelly sand	0.
Water Clarity:	0.00	Water Clarity:	0.2
clear	0.00	clear	0.3
Channel Feature:	0.00	Channel Feature:	0.3
pool	0.00	pool	0.3
Channel Width:	0.00	Channel Width:	0.2
13 yards	0.05	6 yards	0.
0.00	0.00	0.18	0.0

-	Depth (m)
Transect 9	0.00
Substrate:	0.05
gravelly sand	0.10
Water Clarity:	0.20
clear	0.15
Channel Feature:	0.20
riffle	0.20
Channel Width:	0.15
5 yards	0.10
0.13	0.05
Transect 10	0.00
Substrate:	0.05
sandy gravel	0.10
Water Clarity:	0.10
clear	0.10
Channel Feature:	0.15
pool	0.15
Channel Width:	0.15
5 yards	0.15
0.10	0.10
Transect 11	0.00
Substrate:	0.05
sandy gravel	0.10
Water Clarity:	0.15
clear	0.25
Channel Feature:	0.30
riffle	0.35
Channel Width:	0.25
6 yards	0.10
0.13	0.10

Site Median Site Maximum 0.10 0.70

Field Data Sheets for Recreational Use Stream Surveys Data Sheet B - Site Characterization (must be completed for each site)

WBID 737 Site # 14

Date and Time: 8.30.07 7:34PM

Current Weather Conditions fair

Weather Conditions for Past 10 days: 0.88 in. max precipitation

Drought Conditions? No

Site Location (e.g. road crossing) I-70

GPS Mark: 122

Upstream Photo 32 Downstream Photo 31

Uses Observed (Uses actually observed at time of survey) Circle

Swimming Skin Diving SCUBA diving Tubing

Water Skiing Wind Surfing Kayaking Boating

Wading Rafting Hunting Trapping

Fishing <u>None of the Above</u> Other

Surrounding Conditions

City/county parks Playgrounds MDC conservation lands Urban areas

Campgrounds Boating accesses State parks National Forests

Nature trails Stairs/walkway No trespass sign Fence

Steep slopes <u>None of the Above</u> Other

Indications of Human Use

Roads Rope swings Foot paths/prints Dock/platform

Livestock Watering RV/ATV Tracks Camping Sites Fire pit/ring

NPDES Discharge Fishing Tackle Other:

Mark#	122			l Oxygen (p		6.4			
Upstream V	iews Phy	sical Dime	ensions:	Is there ar	ny water p	present at this	view?	yes	
				If so, is the	ere an obv	vious current?	ı	no	
Select one of the following channel features: % of Channel Feature									
Riffle	70 OI OIIGI	64	<u>, </u>	T				\neg	
Run		9		†				-	
Pool		27						1	
Downstream View's Physical Dimensions: Is there any water present at this view? yes									
				If so, is the	ere an obv	vious current?		no	
								7	
<u> </u>									
Substrate:									
27% Cobble	<u> </u>	32% Grave	 el	23% Sand		18% Silt		٦	
27% Cobble	1	32% Grave	el	23% Sand		18% Silt			
27% Cobble		32% Grave		23% Sand		18% Silt			
% Mud/Clay	,	% Bedrock	K]		•			
% Mud/Clay	,	% Bedrock	K]		18% Silt	essment s	ite)	
% Mud/Clay	,	% Bedrock	K]		•	essment s	ite)	
% Mud/Clay	,	% Bedrock	K]		•	essment s	iite)	
% Mud/Clay	,	% Bedrock	K]		•	essment s	iite)	
% Mud/Clay	,	% Bedrock	K]		•	essment s	iite)	
% Mud/Clay	,	% Bedrock	K]		•	essment s	iite)	
% Mud/Clay	,	% Bedrock	K	tation or al		•	essment s	iite)	
% Mud/Clay	,	% Bedrock	K]		•	essment s	ite)	
% Mud/Clay	getation:	% Bedrock	K	tation or al		•	essment s	site)	
% Mud/Clay	getation:	% Bedrock	K	tation or al		•	essment s	iite)	
% Mud/Clay	getation:	% Bedrock	K	tation or al			essment s	ite)	
% Mud/Clay Aquatic Veg Water Char Odor	getation:	% Bedrock (Note amount) ss	unt of vege	none Chemical	gal grow	th at the ass	essment s	site)	
% Mud/Clay Aquatic Veg	getation:	% Bedrock	unt of vege	etation or al	gal grow	th at the ass	essment s	iite)	
Mud/Clay Aquatic Veg Water Char Odor Color	getation:	% Bedrock (Note amou	unt of vege Musky Green	none Chemical Gray	gal grow <u>None</u> Milky	th at the ass	essment s	ite)	
% Mud/Clay Aquatic Veg Water Char Odor	getation:	% Bedrock (Note amount) ss	unt of vege	none Chemical	gal grow	th at the ass	essment s	site)	
Mud/Clay Aquatic Veg Water Char Odor Color Bottom Depo	getation: acteristic	% Bedrock (Note amount) See Sewage Clear Sludge	Musky Green Solids	none Chemical Gray Fine Sed.	gal grow None Milky None	Other Other	essment s	site)	
Mud/Clay Aquatic Veg Water Char Odor Color	getation: acteristic	% Bedrock (Note amou	unt of vege Musky Green	none Chemical Gray	gal grow <u>None</u> Milky	th at the ass	essment s	ite)	

Site #

14

WBID#

737

Data Sheet C: Cross-Sectional Depth Measurements (for estimation of median depth) (Median Depth Shown in Bold)

Site # 14 Mark # 122 WBID # 737

	Depth (m)		Depth (m)		Depth (m)
Transect 1	0.15	Transect 5	0.20	Transect 9	0.00
Substrate:	0.25	Substrate:	0.20	Substrate:	0.30
cobble	0.30	silty sand	0.40	gravel	0.50
Water Clarity:	0.35	Water Clarity:	0.55	Water Clarity:	0.65
murky	0.50	murky	0.65	murky	0.65
Channel Feature:	0.35	Channel Feature:	0.75	Channel Feature:	0.60
run	0.35	pool	0.80	riffle	0.60
Channel Width:	0.15	Channel Width:	0.80	Channel Width:	0.30
6 yards	0.10	22 yards	0.70	8 yards	0.10
0.28	0.10	0.68	1.00	0.40	0.05
Transect 2	0.15	Transect 6	1.00	Transect 10	0.05
Substrate:	0.30	Substrate:	1.00	Substrate:	0.40
cobbly silt	0.60	silty sand	1.00	gravel	0.55
Water Clarity:	1.00	Water Clarity:	1.00	Water Clarity:	0.60
murky	1.00	murky	1.00	murky	0.80
Channel Feature:	1.00	Channel Feature:	1.00	Channel Feature:	1.00
pool	1.00	pool	0.75	riffle	1.00
Channel Width:	1.00	Channel Width:	0.35	Channel Width:	1.00
13 yards	1.00	23 yards	0.50	15 yards	1.00
1.00	1.00	1.00	0.45	0.90	1.00
Transect 3	0.05	Transect 7	0.00	Transect 11	0.05
Substrate:	0.20	Substrate:	0.10	Substrate:	0.30
sandy gravel	0.30	cobbly gravel	0.10	sandy gravel	0.60
Water Clarity:	0.90	Water Clarity:	0.10	Water Clarity:	0.80
murky	1.00	murky	0.10	murky	0.95
Channel Feature:	1.00	Channel Feature:	0.25	Channel Feature:	1.00
pool	1.00	pool	0.35	riffle	1.00
Channel Width:	1.00	Channel Width:	0.55	Channel Width:	1.00
15 yards	1.00	8 yards	0.80	12 yards	1.00
1.00	1.00	0.18	1.00	0.98	1.00
Transect 4	0.10	Transect 8	0.00		
Substrate:	0.40	Substrate:	0.15	Site Median	Site Maximum
silty sand	0.50	cobble	0.20	0.60	1.00
Water Clarity:	0.80	Water Clarity:	0.30		
murky	1.00	murky	0.40		
Channel Feature:	1.00	Channel Feature:	0.50		
pool	1.00	pool	0.55		
Channel Width:	1.00	Channel Width:	0.60		
17 yards	1.00	8 yards	0.55		
1.00	1.00	0.40	0.40		



Site# 1 Photo ID# 1, Upstream



Site# 2 Photo ID# 4, Upstream



Site# 1 Photo ID# 2, Downstream



Site# 2 Photo ID# 3, Downstream



Site# 3 Photo ID# 5, Upstream



Site# 4 Photo ID# 8, Upstream



Site# 3 Photo ID# 6, Downstream



Site# 4 Photo ID# 9, Downstream



Site# 4 Photo ID# 7, Fire pit



Site# 5 Photo ID# 10, Downstream



Site# 5 Photo ID# 11, Upstream



Site# 6 Photo ID# 12, Upstream



Site# 6 Photo ID# 13, Downstream



Site# 6 Photo ID# 16, Camp sites



Site# 6 Photo ID# 15, Rope swings



Site# 6 Photo ID# 14, Inflatable raft



Site# 7 Photo ID# 18, Upstream



Site# 8 Photo ID# 19, Upstream



Site# 7 Photo ID# 17, Downstream



Site# 8 Photo ID# 20, Downstream



Site# 9 Photo ID# 22, Upstream



Site# 10 Photo ID# 24, Upstream



Site# 9 Photo ID# 21, Downstream



Site# 10 Photo ID# 23, Downstream



Site# 11 Photo ID# 26, Upstream



Site# 12 Photo ID# 27, Upstream



Site# 11 Photo ID# 25, Downstream



Site# 12 Photo ID# 28, Downstream



Site# 13 Photo ID# 29, Upstream



Site# 14 Photo ID# 32, Upstream



Site# 13 Photo ID# 30, Downstream



Site# 14 Photo ID# 31, Downstream